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EXAMINER	
NGUYEN, VAN H	

ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/697,073	CHANDRASEKARAN, SASHIKANTH	
	Examiner	Art Unit	
	VAN H. NGUYEN	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47 and 49-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-47 and 49-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-47 and 49-59 are currently pending in this application. Claim 48 has been canceled.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 47 and 49-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 47: *"the local node"* lacks antecedent basis.

Dependent claims 49-59 are rejected for fully incorporating the deficiencies of their base claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14, 19-20, 22-32, 35, 40-41, 43-51, 53-57, and 59 are rejected under 35 U.S.C. 102(e) as being anticipated by **Larsson et al**. (US 20040107387 A1).

As to claim 47:

Larsson teaches computer implemented method *(method ... for generically reporting the occurrence of an event occurring within a computer system. When an event occurs, parameter values corresponding to one or more predefined parameters that describe the event are identified. The parameter values are then stored in a normalized database configured for storing event parameters corresponding to the occurrence of an unlimited number of event types... reporting the occurrence of an event that utilizes a generic reporting schema and database configured for transmitting and storing event data for any type of event. .. a database for storing data relating to one or more events that is normalized and configured for storing data relating to any type of event)* [see the Abstract and ¶¶0008-0014] comprising the computer-implemented steps of: receiving, at

a database server that is executing on a second node in a distributed system, a message that was transmitted by a first node in the distributed system and subsequently had appended thereon information describing an event; and retrieving the information describing the event from the local node where that said event has occurred (see ¶¶0008-0014; 0025-0027; and 0038-0069; see also, Figs.1-6C).

As to claim 49:

Larsson teaches maintaining information that describes a plurality of events, coalescing the information that describes a plurality of events, wherein the information that describes a plurality of events may be coalesced for the same event into a single event notification (see 0038-0069).

As to claim 50:

Larsson teaches maintaining the information that describes a plurality of events (see ¶¶ 0008-0014).

As to claim 51:

Larsson teaches maintaining the information that describes the plurality of events in a shared-memory event buffer (see ¶¶ 0036 and 0058).

As to claims 53-57:

Larsson teaches the use of a computer-readable medium and one or more processors (see the Abstract and ¶¶ 0029-0032).

As to claim 43:

The rejection of claim 47 above is incorporated herein in full. Additionally, Larsson teaches detecting an occurrence of an event at a first node of the system, determining if the information about said event is identical to another previously occurring event, appending onto an existing message a notification that describes a single instance of said event , wherein the message was destined to be propagated to a receiving node that is not a node sending the message; an propagating the notification to the receiving node (see ¶¶0008-0014; 0025-0027; and 0038-0069; see also, Figs.1-6C).

As to claim 44:

Larsson teaches if there exists a stored indication that an identical event was previously generated and the propagating of the message having the information appended did not yet occur, then an indication is stored that multiple identical events were generated (see ¶¶ 0038-0069).

As to claims 45-46:

Larsson teaches the use of a computer-readable medium and one or more processors (see the Abstract and ¶¶ 0029-0032).

As to claim 1:

The rejection of claim 47 above is incorporated herein in full. Additionally, Larsson teaches detecting an occurrence of an initial event at a first node of the system; detecting an occurrence of one or more subsequent events at the first node of the system; determining that the information about the initial event is identical to the information about said one or more subsequent events; in response to determining that the information about the initial event is identical to the information about said one or more subsequent events, appending, onto an existing message, a notification that includes information that describes a single instance of an event selected from a set of events that consists of describing (a) said initial event; and (b) said one or more subsequent events; propagating the notification to the receiving node, wherein the message is destined to be propagated to a receiving node that is not a node sending the message (see ¶¶0008-0014; 0025-0027; and 0038-0069; see also, Figs.1-6C).

As to claim 2:

Larsson teaches the message was generated for purposes other than sending information appended (see ¶¶ 0038-0069).

As to claim 3:

Larsson teaches comparing information that describes the first event with information that describes the second event to determine whether the initial event and the subsequent events are identical; and the method further comprising if the two events are identical, then indicating that the information that describes the subsequent events no longer needs to be retained (see ¶¶ 0038-0069).

As to claim 4:

Larsson teaches setting an identifier indicating that the information describing the identical event is to be appended onto a message and propagated to a particular node (see ¶¶ 0038-0069).

As to claim 5:

Larsson teaches said clustered computing system comprises a database management system) (see ¶¶ 0008-0014).

As to claim 6:

Larsson teaches said clustered computing system comprises a shared-disk database system (see ¶¶ 0008-0014 and 0038-0069).

As to claim 7:

Larsson teaches said clustered computing system comprises a shared-cache parallel database management system (see ¶¶ 0008-0014 and 0038-0069).

As to claim 8:

Larsson teaches said clustered computing system comprises a shared-nothing database management system (see ¶¶ 0008-0014 and 0038-0069).

As to claim 9:

Larsson teaches said clustered computing system comprises a distributed database management system (see ¶¶ 0008-0014 and 0038-0069).

As to claim 10:

Larsson teaches searching a shared-memory event buffer having a size that is fixed (see ¶¶ 0038-0069).

As to claim 11:

Larsson teaches the message has a fixed size, and the method further comprises: appending additional information that describes additional events onto existing message traffic until free space in the fixed-size message is filled (see ¶¶ 0008-0014 and 0038-

0069).

As to claim 12:

Larsson teaches placing the information describing an identical event in a queue (see ¶¶ 0034-0035).

As to claim 13:

Larsson teaches the queue includes at least a priority queuing mechanism in order to determine a priority for events such that high priority events would supercede a low priority events in an event notification queue (see ¶¶ 0034-0035).

As to claim 14:

Larsson teaches an in-memory hash index is used to determine if an event exists in a shared-memory event buffer (see ¶¶ 0008-0014 and 0038-0069).

As to claim 19:

Larsson teaches maintaining the information that describes a plurality of events (see ¶¶ 0008-0014).

As to claim 20:

Larsson teaches maintaining the information that describes the plurality of events in a shared-memory event buffer (see ¶¶ 0038-0069).

As to claims 22-32, 35, 40-41, and 59:

Larsson teaches use of a computer-readable medium and one or more processors (see the Abstract and ¶¶ 0029-0032).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15-18, 21, 33-34, 36-39, 42, 52, and 58 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Larsson** in view of **Koning et al** (US 6,988,226).

As to claim 15:

Larsson teaches generating an event buffer entry of the shared memory event buffer; placing an event identifier into the event buffer entry; and inserting the information describing the identical event into the event buffer entry (see ¶¶ 0038-0069).

Larsson does not specifically teach the claimed partitioning.

Koning teaches partitioning *[partition; see the Abstract and the discussion beginning at col.14, line 65]*.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Larsson with Koning because Koning's teaching would have provided the capability for effectively managing upgrades of distributed data processing systems.

As to claim 16:

Larsson teaches if between a fastest head pointer and a tail pointer there does not exists a buffer entry in the shared memory event buffer for the identical event, generating a new event buffer entry, and the inserting further comprises inserting the information describing the identical event into the new event buffer entry (see ¶¶ 0038-0069).

As to claim 17:

Larsson teaches if between a fastest head pointer and a tail pointer there exists a buffer entry in the shared memory event buffer for the identical event, updating the buffer entry so that the buffer entry represents the second occurrence (see ¶¶ 0038-0069).

As to claim 18:

Larsson teaches using the shared memory event buffer to determine to which existing message to appended the information describing the identical event *[see the discussion beginning at col.13, line 24]*.

Larsson does not specifically teach the use of a round robin method as claimed.

Koning teaches the use of a round robin method *[round-robin scheduling; see the discussion beginning at col.12, line 40]*.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Larsson with Koning because Koning's teaching would have provided the capability for effectively managing upgrades of distributed data processing systems.

As to claim 21:

Larsson does not specifically teach the use of a circular buffer.

Koning teaches the use of a circular buffer *[a circular buffer; see the discussion beginning at col.15, line 53]*.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Larsson with Koning because Koning's teaching would have provided the capability for effectively managing upgrades of distributed data processing systems.

As to claims 33-34, 36-38, and 42:

Larsson teaches use of a computer-readable medium and one or more processors (see ¶¶ 0038-0048).

As to claim 52:

Refer to claim 21 above for rejection.

As to claim 58:

Larsson teaches use of a computer-readable medium and one or more processors (see ¶¶ 0038-0048).

Response to Arguments

5. Applicant's arguments with respect to claims 1-47 and 49-59 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record, listed on PTO 892 provided to Applicant is considered to have relevancy to the claimed invention. Applicant should review each identified reference carefully before responding to this office action to properly advance the case in light of the prior art.

Contact Information

7. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM 6:00PM. The examiner can also be reached on alternative Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG-AI AN can be reached at (571) 272-3756.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/

Primary Examiner, Art Unit 2194